Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-23 (canceled)

Claim 24 (original): A method of testing a first operational mode in a variable function voting solenoid-operated valve apparatus having a first solenoid-operated valve and a second solenoid-operated valve; a bypass valve; and a plurality of pressure sensors including a first pressure sensor in fluid communication with said first solenoid-operated valve, a second pressure sensor in fluid communication with said second solenoid-operated valve, and a third pressure sensor in fluid communication with said bypass valve, the method of testing comprising:

de-energizing said first solenoid-operated valve and confirming a closed state of said first pressure sensor;

re-energizing said first solenoid-operated valve and confirming an open state of said first pressure sensor;

de-energizing said second solenoid-operated valve and confirming a closed state of said second pressure sensor; and

re-energizing said second solenoid-operated valve and confirming an open state of said second pressure sensor.

Claim 25 (original): The method of testing a first operational mode in a variable function voting solenoid-operated valve apparatus of Claim 24, wherein said variable function voting solenoid-operated valve apparatus includes:

a first solenoid-operated valve and a second solenoid-operated valve;

a switch actuated bypass valve;

an aluminum valve manifold, wherein said first and second solenoid-operated valve and said switch actuated bypass valve are joined by said aluminum valve manifold;

a plurality of pressure sensor, including a first pressure sensor in fluid communication with said first solenoid-operated valve, a second pressure sensor in fluid communication with said second solenoid-operated valve, and a third pressure sensor in fluid communication with said switch actuated bypass valve; and

a logic control system, wherein said logic control system selectively enables an operator of said variable function voting solenoid apparatus to select one of at least two discrete operational modes.

Claim 26 (original): A method of testing a second operational mode in a variable function voting solenoid-operated valve apparatus having a first solenoid-operated valve and a second solenoid-operated valve; a bypass valve; and a plurality of pressure sensors including a first pressure sensor in fluid communication with said first solenoid-operated valve, a second pressure sensor in fluid communication with said second solenoid-operated valve, and a third pressure sensor in fluid communication with said bypass valve, the method of testing comprising:

confirming an open state of each of said first pressure sensor and said second pressure sensor;

de-energizing said first solenoid-operated valve and confirming a closed state of said first pressure sensor;

re-energizing said first solenoid-operated valve and confirming an open state of said first pressure sensor; and

de-energizing said second solenoid-operated valve and confirming a closed state of said second pressure sensor.

Claim 27 (original): The method of testing a second operational mode in a variable function voting solenoid-operated valve apparatus of Claim 26, wherein said variable function voting solenoid-operated valve apparatus includes:

- a first solenoid-operated valve and a second solenoid-operated valve;
- a switch actuated bypass valve;

an aluminum valve manifold, wherein said first and second solenoid-operated valves and said switch actuated bypass valve are joined by said aluminum valve manifold;

a plurality of pressure sensors, including a first pressure sensor in fluid communication with said first solenoid-operated valve, a second pressure sensor in fluid communication with said second solenoid-operated valve, and a third pressure sensor in fluid communication with said switch actuated bypass valve; and

a logic control system, wherein said logic control system selectively enables an operator of said variable function voting solenoid-operated valve apparatus to select one of at least two discrete operational modes.

Claim 28 (original): The variable function voting solenoid-operated valve apparatus of Claim 21, wherein said apparatus is used to test the performance of the safety action, a partial movement of the process valve can be executed to prove the process valve is capable of actuating to the safe state, without undesired modification or disruption of the plant process system being monitored, while providing diagnostic information on the safety action.

Conclusion

Entry of the above amendment into the official record, and substantive examination of the case at an early date are kindly requested.

By:

Respectfully submitted,

Date: <u>JUNG 18, 2004</u>

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